

SPECIFICATION

Stylesheet Version 1.0

Portable Sink with Internal or Optional External Water Supply

Background of Invention

- [0001] Much of the portable sink prior art is limited in use to specific tasks, e.g., hand washing, utensil washing, personal hygiene, pet care, and camping. The Mosis invention provides an improved portable sink. The Mosis invention is distinguishable from ALL the prior art because it allows the user to draw water from a source other than the self-contained fresh water tank by utilizing an optional external garden hose hook up. The Mosis invention is further distinguishable from ALL prior art because of its more compact design, lighter weight, and ease of mobility.
- [0002] Although the intended purpose of the Mosis invention is to promote general indoor and outdoor sanitation and health primarily for educational facilities such as: schools, science labs and day care centers, the Mosis invention can also be used for hand washing, utensil washing, personal hygiene, pet care, camping. The Mosis invention significantly expands the limited uses of the prior art by allowing for an optional external water source, making the Mosis invention a viable solution for those persons desiring a more permanent (yet still easily mobile) indoor or outdoor sink.
- [0003] The Mosis invention's external water source allows it to be used as a stand-alone sink on a more permanent basis if necessary. The supply of fresh water through an optional external connection such as a garden hose gives the Mosis invention the ability to be mobile while also allowing it to be supplied with an endless water supply. Not one of the prior art discussed or researched allows the portable sink to draw water from an external water source. Only the Mosis invention allows this level of versatility.
- [0004] There have been past attempts at providing a portable sink. For example, U.S. Pat.

Nos. 3,594,830, 3,983,583 and 4,072,157 all these inventions rolled about on wheels, which include a basin, faucet, and a tank to store used water. However, the devices disclosed in these patents are all too heavy and bulky to be practical for true portable, use, especially uses outdoors, or in remote locations.

- [0005] U.S. Pat. Nos. 2,944,862, 4,766,621, and 5,313,676 each are supported by telescoping and/or folding legs. These devices are generally more compact, and of lighter weight design, but are still too bulky, include projections, sharp edges and corners that prevent these designs from being practical for portable use.
- [0006] U.S. Pat. Nos. 1,358,937, 2,594,938, and 5,301,376 are portable sinks in a carrying case. They have no wheels, and very limited fresh water reserves from a small internal case water supply tank.
- [0007] U.S. Pat. Nos. 6,173,458, 3,192,537, and 5,813,063 are similar to the Mosis invention, these prior inventions all contain a type of portable sink mounted on a cabinet with wheels utilizing hot and cold water sourced from a fresh water tank with second tank to contain the used water. However, there are several critical differences. The prior inventions may be mobile but their bulk and weight make their mobility impracticable First, the Mosis invention is lightweight, weighing only 109 lbs., a fraction (less than $\frac{1}{2}$) of what the lightest of the aforementioned inventions weigh. The Mosis invention's compact size and weight makes for easier mobility both in and out doors.
- [0008] The prior inventions primarily address specific market segments such as food service, hair washing and nursing. Although the Mosis invention is primarily intended to service educational facilities, schools, science labs and day care centers, it is sufficiently versatile to be used for many of the same uses encompassed by the prior inventions. The Mosis invention promotes general indoor and outdoor sanitation and health primarily for educational facilities, schools, science labs, libraries and other indoor or outdoor facilities where the need for mobile fresh water exists.

Summary of Invention

- [0009] The invention (hereinafter referred to as the "Mosis" invention) relates to a readily portable sink designed to be used indoors or outdoors providing hot and cold water

from either a self-contained fresh water tank or from an optional external water source such as a garden hose.

- [0010] The Mosis invention comprises of a portable sink, mounted in a lightweight cabinet with wheels for easy mobility. The sink has hot and cold running water. Unlike other inventions, the Mosis invention allows for both an internal (self contained fresh water tank) and an optional external water source (e.g. a garden hose or other faucet connection). The sink has an electric pump, an electric heater, and a high pressure water tubes which control the flow of hot and cold water from either of the two fresh water sources, to the faucet and ultimately to the self contained used water holding tank.
- [0011] The sink is mounted on a lightweight cabinet weighing approximately 109 pounds when water tanks are empty. The cabinet is made of heavy-duty plastic which is mounted on 4 wheels, 2 swivel wheels with breaks. The sink has both a hot and cold water tubes connected to at least one faucet and a used water holding tank to hold the used water from the sink.
- [0012] The hot water is provided via an electrical heater mounted within the cabinet that is connected to an external power source. Water that is pumped from either the optional external or the self contained fresh water tank through a water pump to the heater for the heating of the water. The pump also provides cold water to the faucets outside of the circuit of the heater so the sink may produce hot, cold or warm water. For safety, the water temperature is controlled through a regulator and a safety valve that compensates for over pressure.

Brief Description of Drawings

- [0013] FIG 1 shows an overall drawing of the cabinet including the faucet, the towel holder 9 and the 2 swivel wheels.
- [0014] FIG 2 shows a sectional view of the cabinet detailing the sink faucet, the soap dispenser, the electric cord and the 2 swivel wheels without brakes.
- [0015] FIG 3 shows a frontal perspective view of the sink.
- [0016] FIG 4 shows a sectioned top plan view of the sink.

- [0017] FIG 5 shows a front view of the sink and the cabinet with the doors open detailing the water tanks, water pump and water heater connections.
- [0018] FIG 6 shows a line diagram of the sink from inside consisting of water delivery system, drain system and electrical components. See figure 7 for illustration of the water delivery system and figure 11 for the drain system.
- [0019] FIG 7 shows the water delivery system.
- [0020] FIG 8 shows an outside view and a detailed diagram of the garden hose connection.
- [0021] FIG 9 shows an inside view of the garden hose connection.
- [0022] FIG 10 shows a detailed diagram of the electrical components including the water heater and water pump.
- [0023] FIG 11 shows the water drain system.

Detailed Description

- [0024] Looking at Fig 1 it shows a cabinet 1 with a sink. The cabinet has two doors supported with two hinge points from top and bottom so the doors can be easily opened and closed. The two doors can close tightly. Pair of handles is located at the top of the doors to allow easy access by placing one's hand and pulling the door open.
- [0025] The cabinet 1 is supported by four swivel wheels 14, two of which are with brakes and the other two are without brakes placed in a like position on the other side which are not shown. The two wheels with brakes have a little brake element that can be pressed downward to hold the sink from moving.
- [0026] The cabinet 1 has a stainless steel sink with at least one bowl. Attached to the sink is a hot and cold faucet 6 connected to the drain system as shown in Fig 11 and also connected to the delivery system as shown in Fig 7.
- [0027] Looking at Fig 2 and 3 it shows soap dispenser 8 attached to the front right door of the cabinet. The soap dispenser allows easy access to soap for hand washing. Fig 2 and Fig 3 also shows a paper towel holder on the side of the cabinet allowing easy

source of paper towels.

- [0028] Looking at Fig 5 it can be seen that the cabinet area has a total of two tanks 10. One for fresh water placed usually on the left side of the cabinet, the other tank is placed next to it and is used for gray water disposed out of the sink 5 through the drain system. These two tanks must be filled or emptied respectively to allow usage of the sink.
- [0029] Looking more specifically at Fig 5, it shows a water heater 2. The water heater has an electrical water pump 3 attached to it, which allow cold water to be pushed through the water tubes to the faucet 6. The hot water is also pumped through the water heater 2 then to the faucet 6. The cabinet also has a GFI outlet with switch 4 for the purpose of controlling the unit electrically. This switch outlet 4, as shown in fig 10, have an electrical cord 17 which needs to be connected to an electrical wall outlet plug plug for the sink to operate. This cord 17 provides electric power to the unit.
- [0030] * Self Contained delivery system: Fig 7 shows the water delivery system when the unit is connected to a source of electricity allows the water pump to pull water from the fresh water tank through the check valve 13 passing into the tubes. The water pump then pushes the water through the tubes – going through the water heater – then out of the hot water faucet or going outside directly to the cold water faucet.
- [0031] * Outside Water Supply System: Fig 8 & 9 shows sectional overview diagram of the garden hose connection that can be attached to the sink from the back. This attachment allows the water to be taken from a garden hose directly to the delivery system of the sink instead of using the fresh water tank. The garden connection 11 is connected to a garden hose that allows high-pressure water to go through the valve 12 and the Tee 16 through the water pump 3 then the water heater 2 to the faucet 6. Opening the Ball valve 12 allows water to move from the garden hose and not from the water tank. The check valve 13 is a one way only valve, which prevents water from going back to fresh water tank whenever water is taken from the garden hose.
- [0032] Fig 11 shows the drain system illustrating how water flows from the sink to the gray water tank 10 through the tubes 7. The overflow tube 15 allows excess water to go down outside the cabinet.

[0033] As it can be seen from the above description, this design provides a substantial easy source of hot and cold running water for a lot of schools, day care facilities as well as for a lot of other business in general.

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